



ARKANSAS
Department of Environmental Quality

July 19, 2016

USEPA REGION 6

Attn: Valmichael Leos, Remedial Project Manager
1445 Ross Avenue, Suite 1200, Mail Code 6SF
Dallas, TX 75202-2733

Subject: Draft Remedial Investigation Feasibility Study Work Plan dated June 17, 2016
Cedar Chemical Corporation Superfund Site, Helena-West Helena, Arkansas
CERCLA Docket No. 06-04-16, EPA ID No. ARD990660649, AFIN 54-00068

Dear Mr. Loes:

The Arkansas Department of Environmental Quality – Office of Land Resources (ADEQ) Regulated Waste Programs has reviewed the draft Remedial Investigation Feasibility Study Work Plan for the Cedar Chemical Superfund Site. ADEQ has the following comments:

1. **Title Page:** The Rules of the Arkansas State Board of Registration of Professional Geologist require that geologic plans related to public welfare and the environment be prepared by, or under the supervision of, an Arkansas registered professional geologist (P.G.). Therefore, this report should be signed and sealed by an Arkansas P.G. Please update accordingly.
2. **Section 3.2.3 Exposure Routes – On-Site Soil:** Please provide an explanation why sub-surface soil will not be evaluated, or update this section to evaluate sub-surface soil. Further, soils in the wooded area should be evaluated for human health risk, as well as ecological risk.
3. **Section 3.2.3 Exposure Routes – Groundwater Source Media Groundwater:** This section does not consider the vapor intrusion pathway as complete for the perched zone or the alluvial aquifer. However, ADEQ would like further evaluation to help support this claim. ADEQ recommends using the Johnson & Ettinger (J&E) Model or USEPA Vapor Intrusion Screening Level (VISL) calculator to evaluate potential vapor intrusion risks from the perched zone and the alluvial aquifer.
4. **Section 3.2.4 Current and Anticipated Future Land Use – On-site Areas:** It may be more accurate to state that ADEQ controls who leases the site, as opposed to stating that ADEQ controls who owns the site.
5. **Section 3.2.5 Potential Human and Ecological Receptors:** Currently, on and off-site properties are not restricted to industrial use only. Therefore, ADEQ recommends including the following receptors in the on and off-site conceptual models:
 - On-Site: future resident, adolescent trespasser, outdoor worker, indoor worker, and construction worker
 - Off-site: future resident, indoor worker

6. **Appendix A, Section 3.7.5 Well Abandonment Procedures First Paragraph, Second Bullet:** ADPC&E Interim Policy 96-4 requires abandonment of wells by over-drilling to remove casing and all well completion materials from the wellbore. Please correct.
7. **Section 5.4 Sample Analysis/Validation, First Paragraph:** In addition to chemicals of concern (volatile organic chemicals, semi-volatile organic chemicals, metals, pesticides, and herbicides) soil and groundwater samples should be analyzed for monitored natural attenuation parameters (e.g. total organic carbon, 1,2-dichlorethane degradation products (chloroethanol, chloroacetaldehyde, and chloroacetate), chloride, hydrogen). Please revise.
8. **Section 5.5 Data Evaluation:** Please restate which contaminants, analytical methods, and screening levels will be used in media-specific data evaluation. In addition, include the following text to reflect the screening level methodology: "The latest USEPA Regional Screening Levels (HQ=0.1) will be used in the evaluation. Surface soil (0-6" bgs) contaminants will be compared to the appropriate USEPA Residential and Industrial Soil Screening Levels. Subsurface soil (greater than 0-6" bgs) contaminants will be compared to USEPA MCL-Based Protection of Groundwater Soil Screening Levels (PGSSLs). If a MCL-Based PGSSL is unavailable the Risk-Based PGSSL should be used. Groundwater contaminants will be compared to their respective USEPA MCLs. If a USEPA MCL is unavailable, the USEPA Tapwater Screening Level should be used."
9. **Section 5.6.2 Baseline Human Health Risk Assessment – Risk Characterization:** In this section, please specify the site will be evaluated utilizing the USEPA cumulative target cancer risk range of $1E-04$ – $1E-06$ and cumulative non-cancer risk threshold of $HI=1.0$.
10. **Section 5.6.2 Baseline Human Health Risk Assessment – Risk Characterization:** In this section or as an appendix, please provide the parameters to be used in risk calculations (i.e., risk equations and receptor input parameters).
11. **Section 5.6.3 Baseline Ecological Risk Assessment:** Please restate which contaminants, analytical methods, and screening levels will be used in media-specific data evaluation. Also, please indicate how receptors will be identified and chosen for evaluation.
12. **Section 7.3.5 Quarterly Progress Reports, Second Paragraph:** In addition to the submission of reports in PDF format, Excel spreadsheets or Access database tables should be submitted for any data included in the reports or utilized to construct figures or tables. Please revise.

ADEQ would appreciate if you would request that these comments are incorporated into the revised Remedial Investigation Feasibility Study Work Plan. If you have any questions, please contact me at (501) 682-0848 or cusher@adeq.state.ar.us.

Sincerely,



Annette Cusher, P.E.
Engineer P.E. Branch Manager
Office of Land Resources